

August 30, 2019

Arcelor Mittal USA, Inc.
250 W US Highway 12
Burns Harbor, IN 46304-9745

Work Order No.: 19H1946

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 2 sample(s) on 8/30/2019 10:50:00AM for the analyses presented in the following report as Work Order 19H1946.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at ron.misiunas@microbac.com.

Sincerely,
Microbac Laboratories, Inc.



Carey Gadzala
Project Manager



WORK ORDER SAMPLE SUMMARY

Date: *Friday, August 30, 2019*

Client: Arcelor Mittal USA, Inc.
Project: Daily
Lab Order: 19H1946

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1946-01	002-Composite	002	08/29/2019 00:00	8/30/2019 10:50:00AM
19H1946-02	002-Grab	002	08/29/2019 00:00	8/30/2019 10:50:00AM

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 800.536.8379 p | 219.769.8378 p | 219.769.1664 f | www.microbac.com

Analytical Results

Date: *Friday, August 30, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1946-01
Client Project:	Daily	Sampled:	08/29/2019 0:00
Client Sample ID:	002-Composite	Received:	08/30/2019 10:50
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: SM 4500-CN C/E-1999			Analyst: ABG		
Prep Date/Time: 08/30/2019 12:38									
Total Cyanide									
Cyanide, Total	ejj	A	ND	0.0020	0.0050	U	mg/L	1	08/30/2019 15:16

Analytical Results

Date: *Friday, August 30, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1946-02
Client Project:	Daily	Sampled:	08/29/2019 0:00
Client Sample ID:	002-Grab	Received:	08/30/2019 10:50
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA 1664B					Analyst: KMT				
Oil & Grease (HEM) by SPE									
Prep Date/Time: 08/30/2019 07:54									
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/30/2019 13:49

ANALYTE TYPES: (AT)

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)



QC SAMPLE IDENTIFICATIONS

BLK = Method Blank

DUP = Method Duplicate

BS = Method Blank Spike

MS = Matrix Spike

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank

CRL = Client Required Reporting Limit

PDS = Post Digestion Spike

QCS = Quality Control Standard

ICSA = Interference Check Standard "A"

ICSAB = Interference Check Standard "AB"

BSD = Method Blank Spike Duplicate

MSD = Matrix Spike Duplicate

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

OPR = Ongoing Precision and Recovery Standard

SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

i Kansas Dept Health & Env. NELAP (#E-10397)

j Kentucky Wastewater Laboratory Certification Program (#108202)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)**MDL:** Minimum Detection Limit**RL:** Reporting Limit**RPD:** Relative Percent Difference**U:** The analyte was analyzed for but was not detected above the reported quantitation limit. The quantitation limit has been adjusted for any dilution or concentration of the sample.

Cooler Receipt Log

Cooler ID: Default Cooler

Temp: 2.8°C
 MICROBAC®

Cooler Inspection Checklist

Ice Present or not required?	Yes
Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes
Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes
Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes
Sample type identified on COC?	Yes
Correct type of Containers Received	Yes
Correct number of containers listed on COC?	Yes
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes
Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes
Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes

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CHAIN OF CUSTODY RECORD



Number **152281**
Instructions on back

TO BE COMPLETED BY MICROBAC
 Temperature Upon Receipt (°C) **3.1**
 Therm ID **-03**
 Holding Time **2.8**
 Samples Received on Ice? Yes No N/A
 Custody Seals Intact? Yes No N/A

Turnaround Time
 Routine (5 to 7 business days)
 RUSH* (notify lab)

RUSH! (needed by)

Lab Report Address
 Client Name: **Arcelor Mittal**
 Address:
 City, State, Zip:
 Contact: **Tami Kirk**
 Telephone No.:

Send Report via: Mail Fax e-mail (address)
 Send Invoice via: Mail Fax e-mail (address)
 Project: **Warren Howard**
 Compliance Monitoring? Yes No
 Agency/Program

Sampler Signature: **Warren Howard**
 Sampler Phone No.:

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)
 ** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Analysis	Phenol	Zn	Pb	PCB	RCI	CM	Additional Notes
001	8/29/19	0735	1	U	U		Ammonia	X	X	X	X	X	X	19H1946
001	8/30/19		2	U	U			X	X	X	X	X	X	
011	8/29/19		1	U	U			X	X	X	X	X	X	
011	8/30/19		3	U	U			X	X	X	X	X	X	
002	8/29/19		1	U	U			X	X	X	X	X	X	
002	8/30/19		2	U	U			X	X	X	X	X	X	
Lagoon Channel Inlet	8/30/19	0735	1	U	U			X	X	X	X	X	X	
South Lagoon Inlet	8/30/19	0740	1	U	U			X	X	X	X	X	X	
011	8/30/19	0750	1	U	U			X	X	X	X	X	X	

zard Identification Hazardous Non-Hazardous Radioactive Sample Disposition Dispose as appropriate Return Archive

Relinquished By (signature) **Warren Howard** Date/Time **8/30/19 0900**
 Relinquished By (signature) **Tami Kirk** Date/Time **8/30/19 1050**
 Relinquished By (signature) **Tami Kirk** Date/Time **8/30/19 1050**

Received By (signature) **Tami Kirk** Date/Time **8/30/19 0800**
 Received By (signature) **Tami Kirk** Date/Time **8/30/19 0800**
 Received By (signature) **Tami Kirk** Date/Time **8/30/19 1050**

19H1946 Carey Gadzala
 ArcelorMittal - Burns Harbor, IN
 Daily
 08/30/2019

